

CLAIMS

Sub
a1
1. A data receiving device for receiving compressed digital data distributed through a transmission line, the device comprising:

processing means for processing received compressed digital data, thereby enabling output of a plurality of output signals of different types;

a plurality of output means corresponding to the plurality of output signals processed by the processing means; and

control means for carrying out control so that an output signal is outputted from one of the plurality of output means in accordance with the connection state between each output means and an external storage device.

2. The data receiving device as claimed in claim 1, wherein the plurality of output means include at least output means for outputting the received compressed data without decoding.

3. The data receiving device as claimed in claim 1, further comprising:

data expansion means for decoding the compressed digital data; and

digital/analog conversion means for digital/analog-converting the output of the data expansion means,

the device comprising, as the output means:

compressed data output means for outputting the compressed digital data in the compressed state to the storage means;

digital data output means for outputting the output of the data expansion means

662027" 5805460

to the storage means; and

analog data output means for outputting the output of the digital/analog conversion means to the storage means.

4. The data receiving device as claimed in claim 3, wherein the compressed digital data distributed through the transmission line is distributed with additional information multiplexed thereto, and

the additional information is outputted together with the compressed digital data to the storage means in the case where the compressed data output means is selected, while the additional information is not outputted to the storage means when the digital data output or the analog output is selected.

5. The data receiving device as claimed in claim 3, wherein the control means carries out control so that the connection state between the compressed data output means and the data storage device is preferentially selected.

6. The data receiving device as claimed in claim 1, wherein the compressed digital data distributed through the transmission line is distributed with compressed digital data of a plurality of contents multiplexed thereto, and arbitrary contents thereof can be selected.

7. The data receiving device as claimed in claim 6, wherein data controlling a graphical user interface of the data receiving device is multiplexed to the compressed digital data and thus distributed, so that the contents are selected by using the graphical user interface control data.

al
Cont.

09445085-120099

8. The data receiving device as claimed in claim 6, wherein the plurality of contents are distributed with compressed digital data multiplexed thereto, the compressed digital data being compressed by a plurality of compression systems.

9. The data receiving device as claimed in claim 8, further comprising:

data expansion means for decoding compressed digital data compressed by a first compression system, from among the compressed digital data compressed by the plurality of compression systems; and

digital/analog conversion means for digital/analog-converting the output of the data expansion means,

the device comprising, as the output means:

compressed data output means for outputting, to the storage means, compressed digital data compressed by a second compression system in the compressed state, from among the compressed digital data compressed by the plurality of compression systems;

digital data output means for outputting the output of the data expansion means to the storage means; and

analog data output means for outputting the output of the digital/analog conversion means to the storage means.

10. The data receiving device as claimed in claim 9, wherein the compressed digital data compressed by the second compression system is compressed on the time base and then distributed.

516
021

09445085-120299

SECRET

- processing received compressed digital data so that a plurality of output signals of different types can be outputted to the storage device; and

selecting one of the plurality of output signals in accordance with the connection state between the storage device and the data receiving device and outputting the selected output signal to the storage device.

12. The data receiving method as claimed in claim 11, wherein the plurality of output signals of different types include:

a digital data output signal obtained by decoding the compressed digital data;

an analog output signal obtained by decoding and digital/analog-converting the compressed digital data; and

a compressed digital data output signal in the compressed state without decoding the compressed digital data.

13. The data receiving method as claimed in claim 12, wherein the compressed digital data distributed through the transmission line is distributed with additional information multiplexed thereto, and

the additional information is outputted together with the compressed data output signal to the storage means in the case where the compressed data output signal is selected, while the additional information is not outputted to the storage means when

the digital data output signal or the analog output signal is selected.

14. The data receiving method as claimed in claim 12, wherein the compressed digital data output signal is preferentially selected from among the plurality of output signals.

15. The data receiving method as claimed in claim 11, wherein the compressed digital data distributed through the transmission line is distributed with compressed digital data of a plurality of contents multiplexed thereto, and arbitrary contents thereof can be selected.

16. The data receiving method as claimed in claim 15, wherein data controlling a graphical user interface of the data receiving device is multiplexed to the compressed digital data and thus distributed, so that the contents are selected by using the graphical user interface control data.

17. The data receiving method as claimed in claim 15, wherein the plurality of contents are distributed with compressed digital data multiplexed thereto, the compressed digital data being compressed by a plurality of compression systems.

18. The data receiving method as claimed in claim 17, wherein the plurality of output signals of different types include:

a digital data output signal obtained by decoding compressed digital data compressed by a first compression system, from among the compressed digital data compressed by the plurality of compression systems;

an analog output signal obtained by decoding and digital/analog-converting the

02
C-2

652021-5805460

compressed digital data compressed by the first compression system; and

a compressed digital data output signal, which is a direct output of compressed digital data compressed by a second compression system, from among the compressed digital data compressed by the plurality of compression systems.

19. The data receiving method as claimed in claim 18, wherein the compressed digital data compressed by the second compression system is compressed on the time base and then distributed.

20. A data receiving device for receiving compressed digital data and additional information distributed through a transmission line, the device comprising:

receiving means for receiving the compressed digital data and additional information; and

output means for outputting the received compressed digital data and the additional information to a storage device.

21. The data receiving device as claimed in claim 20, wherein the additional information includes at least still picture information.

22. The data receiving device as claimed in claim 20, wherein the additional information includes at least character information.

23. The data receiving device as claimed in claim 20, wherein the compressed digital data is digital audio data obtained by compressing a tune.

24. The data receiving device as claimed in claim 23, wherein the digital audio data and the additional information are distributed through digital broadcast.

652027" 58054460

02
cont.

1-2-2007

25. The data receiving device as claimed in claim 23, wherein the digital audio data and the additional information are multiplexed for a plurality of tunes for distribution, and a desired tune can be selected by the receiving means.

26. The data receiving device as claimed in claim 23, wherein data controlling a graphical user interface of the data receiving device is multiplexed and distributed, so that the desired tune can be selected by using the graphical user interface control data.

27. The data receiving device as claimed in claim 23, further comprising:

data expansion means for decoding the compressed digital audio data;

digital/analog conversion means for digital/analog-converting the output of the data expansion means;

digital data output means for outputting the output of the data expansion means to the storage means;

analog data output means for outputting the output of the digital/analog conversion means to the storage means; and

compressed data output means for outputting the compressed digital data in the compressed state to the storage means;

wherein the additional information is outputted together with the compressed digital data to the storage means when the compressed data output means and the storage device are connected to each other, while the additional information is not outputted to the storage means when the digital data output means or the analog data output means and the data storage device are connected to each other.

Sub
C3

09445085-12099

28. The data receiving device as claimed in claim 23, further comprising:
- data expansion means for decoding the compressed digital audio data;
 - digital/analog conversion means for digital/analog-converting the output of the data expansion means;
 - digital data output means for outputting the output of the data expansion means to the storage means;
 - analog data output means for outputting the output of the digital/analog conversion means to the storage means;
 - compressed data output means for outputting the compressed digital data in the compressed state to the storage means; and
 - control means for carrying out control so that an output signal is outputted from one of the digital data output means, the analog data output means and the compressed data output means in accordance with the connection state between the data receiving device and the storage device.
29. A data receiving method for receiving compressed digital data and additional information distributed through a transmission line by a data receiving device and outputting the compressed digital data and additional information to an external storage device, the method comprising the steps of:
- receiving the compressed digital data and additional information; and
 - outputting the received compressed digital data and the additional information to the storage device.

662021-5805460

SUB
24

30. The data receiving method as claimed in claim 29, wherein the additional information includes at least still picture information.

31. The data receiving method as claimed in claim 29, wherein the additional information includes at least character information.

32. The data receiving method as claimed in claim 29, wherein the compressed digital data is digital audio data obtained by compressing a tune.

33. The data receiving method as claimed in claim 32, wherein the digital audio data and the additional information are distributed through digital broadcast.

34. The data receiving method as claimed in claim 32, wherein the digital audio data and the additional information are multiplexed for a plurality of tunes for distribution, and a desired tune can be selected by the receiving means.

35. The data receiving method as claimed in claim 34, wherein data controlling a graphical user interface of the data receiving device is multiplexed and distributed, so that the desired tune can be selected by using the graphical user interface control data.

36. The data receiving method as claimed in claim 29, wherein the received compressed digital data is processed so that a plurality of output signals of different types can be outputted to the storage device, and

one of a digital data output signal obtained by decoding the compressed digital data, an analog output signal obtained by digital/analog-converting the compressed digital data, and a compressed digital data output signal as a direct output of the compressed digital data without decoding is selected and outputted to the storage

25
25
662027-5805470

means in accordance with the connection state with the storage device.

37. The data receiving method as claimed in claim 36, wherein the additional information is outputted together with the compressed digital data to the storage means when the compressed digital data output signal is selected, while the additional information is not outputted to the storage means when the digital data output signal or the analog output signal is selected.

38. A data receiving device for storing down-load record information into a storage unit every time desired contents are selected and down-loaded from a plurality of contents distributed through a transmission line, and transmitting the information stored in the storage unit to a predetermined record information transmission destination at predetermined timing, thus carrying out charging processing, the device comprising:

a second storage unit for storing information about the contents of the selection or down-loading; and

means for transmitting the information stored in the second storage unit to a transmission destination different from the record information transmission destination at predetermined timing.

39. The data receiving device as claimed in claim 38, wherein identification information of the selected or down-loaded contents and time information of the selection or down-loading are stored in the second storage unit.

40. A data receiving device for receiving compressed digital data distributed

05445085-12099

through a transmission line, the device comprising:

first data expansion means for expanding the compressed digital data;

second data expansion means for expanding the compressed digital data; and

control means for carrying out control so as to use one of the output of the first data expansion means and the output of the second data expansion means for monitoring and to use the other for data storage.

41. The data receiving device as claimed in claim 40, wherein the first data expansion means and the second data expansion means carry out data expansion of compressed digital data compressed by the same compression system.

42. The data receiving device as claimed in claim 40, wherein the first data expansion means and the second data expansion means carry out data expansion of compressed digital data compressed by different compression systems.

43. The data receiving device as claimed in claim 40, wherein at least one of the first data expansion means and the second data expansion means is constituted by software.

44. A data receiving device comprising:

receiving means for receiving compressed digital audio data repeatedly distributed through a transmission line;

storage means for storing the compressed digital audio data received by the receiving means; and

control means for controlling reading from a predetermined part of the

09445085-120299

compressed digital audio data stored in the storage means.

45. The data receiving device as claimed in claim 44, wherein at least a part of the compressed digital audio data is stored in the storage means.

46. The data receiving device as claimed in claim 44, wherein the compressed digital audio data is multiplexed for a plurality of tunes for distribution, and reading from the storage means is carried out with respect to a predetermined tune selected from the plurality of tunes.

Add
B17

662021" 5805460